Ovarian drilling for infertility

This fact sheet was developed in collaboration with The Society of Reproductive Surgeons

Often, women with polycystic ovary syndrome (PCOS) do not have regular menstrual periods. This usually means that a woman doesn’t ovulate (release an egg) every month and may have trouble getting pregnant. Hormone treatments like birth control pills can help make periods more regular but will prevent a woman from getting pregnant.

There are fertility medicines that may help women with PCOS to ovulate more regularly and increase their chance of becoming pregnant. These include clomiphene citrate, aromatase inhibitors, and metformin.

When these medicines do not work, some women may be helped with a surgical procedure called ovarian drilling. This procedure is sometimes called “whiffle ball” surgery, modified wedge resection, and other names.

What is ovarian drilling and how does it work?

Women with PCOS usually have ovaries with a thick outer layer. The ovaries make more testosterone. High testosterone levels can lead to irregular menstrual periods, acne, and extra body hair.

Ovarian drilling works by breaking through the thick outer surface and lowering the amount of testosterone made by the ovaries. This can help the ovaries release an egg each month and start regular monthly menstrual cycles. This may make it easier to get pregnant.

How is ovarian drilling done?

A minimally invasive surgery called laparoscopy is used for ovarian drilling. A thin, lighted telescope (laparoscope) is put through a small surgical cut (incision) near the belly button. A tiny camera is used to see the ovaries. The surgeon inserts tools through other tiny incisions in the lower belly and makes very small holes in the ovaries. This helps lower the amount of testosterone made by the ovaries.

What are the benefits of ovarian drilling?

The goal of this procedure is to restore a woman’s menstrual cycle and help her ovulate. About 50% of women get pregnant in the first year after surgery. Some women still may not have regular cycles after the surgery. Others may have other fertility problems (such as blocked tubes or a low sperm count) that can prevent pregnancy.

Ovarian drilling is a one-time treatment unlike fertility medicines that have to be taken every month. Having twins or triplets is not as likely with ovarian drilling as with fertility medicines. However, the benefits of ovarian drilling are not permanent. Ovulation and menstrual cycles may become irregular again over time.

For some women with PCOS, ovarian drilling will not fix the problems with irregular periods and ovulation, even temporarily. However, ovarian drilling can help a woman respond better to fertility medicines.

What are the risks of ovarian drilling?

The decision to do ovarian drilling should not be made lightly. While problems from ovarian drilling are rare, some can be serious.

Some of the risks are related to surgery. As with all surgical procedures, there are risks of bleeding, anesthesia, and infection. Also, laparoscopy can cause injury to the bowel, bladder, and blood vessels. Very rarely, there is a risk of death.

There are also risks to fertility. If there is too much damage to the ovary during the ovarian drilling procedure, a woman may enter menopause at a younger age than expected. After the procedure, adhesions (scarring) can form between the ovaries and the fallopian tubes, making it hard to get pregnant.

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